

### **IN THE CLAIMS:**

Please cancel original claims 1 to 5 in the application as well as amended claims 1 to 5.

Please add the following new claims:

6. (New) A method for production of a semi-finished product made of zirconium alloy containing by weight at least 97% zirconium, intended for the production of flat products, comprising:
  - producing an ingot with a diameter between 400 mm and 800 mm and a length between 2 m and 3 m by casting the zirconium alloy;
  - forging the ingot of the semi-finished product in the form of a slab with a thickness of approximately 100 mm and intended to be hot rolled then cold rolled to obtain a flat product of a thickness between 0.2 mm and 4 mm, wherein the slab is produced from the ingot by a single forging operation at a temperature at which the zirconium alloy is in a state comprising the crystalline  $\alpha$  and  $\beta$  phases of the zirconium alloy.
7. (New) The method according to claim 6, wherein at the forging temperature the ingot contains a volume proportion of zirconium alloy in the  $\alpha$  phase between 10% and 90%, a remainder of the zirconium alloy of the ingot being in the  $\beta$  phase.
8. (New) The method according to claim 6, wherein the forging of the zirconium alloy in the  $\alpha$  and  $\beta$  phase is performed at a temperature between 850°C and 950°C.
9. (New) The method according to claim 6, wherein the zirconium alloy contains at least 3% by weight in total of additive elements comprising at least one of the elements tin, iron, chromium, nickel, oxygen, niobium, vanadium and silicon, a remainder of the alloy being constituted by zirconium with an exception of inevitable impurities.

10. (New) The method according to claim 6, wherein during production of the slab a flat product of a thickness between 0.2 mm and 4 mm is produced for a nuclear fuel assembly.